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ABSTRACT

The research question investigated was: What relationship, if any, exists between teacher personality characteristics associated with self-actualization and the test anxiety levels of their students. Teacher personality characteristics in 6 schools were assessed with the Shostrom Personal Orientation Inventory. The Sarason Test Anxiety Scale for Children was administered to their pupils. Students in grades 4 through 8 were the subjects of the research. At the junior high school level it was found that a significant relationship existed between teachers with high spontaneity in combination with high self-regard and relatively low test anxiety in their students. Results approached significance for elementary school students. The implications of these findings for education and selection of teachers for the junior high level are considered. (JD)

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STUDENT TEST ANXIETY AS RELATED TO THE PERSONALITY CHARACTERISTICS OF THEIR TEACHERS

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Student Test Anxiety As Related To The Personality Characteristics Of Their Teachers

Research has consistently indicated that high levels of test anxiety have a detrimental effect on the test performance of children (15, 13). Test anxiety has also been found to be related to other anxieties, dependent behavior, and low self-esteem (13, 6).

Early researchers in this area assumed the development of test anxiety to be largely dependent upon the parent-child relationship (15). However, with the finding that an individual child's test anxiety score may vary greatly through the course of the elementary school years (3), this view was modified to the extent that the child's school experiences were also acknowledged to play a large role in determining his level of test anxiety.

Foremost among the important factors within the school experience is the teacher-child relationship, and Hill and Sarason (3) have suggested that "there are undoubtedly wide individual differences among teachers in ability to perceive and deal effectively with high anxious children." However, although these authors indicated that investigation of teacher effects on test anxiety appeared to be a promising area for further study, a review of the literature reveals that very little research has been done to determine what relationships (if any) exist between teacher characteristics and student test anxiety.

Perhaps one reason for the lack of research in this area is the frequently cited failure of studies attempting to determine those personal characteristics which contribute to various aspects of teacher effectiveness. For example, Getzels and Jackson (2), after reviewing approximately 800 studies on teacher characteristics, concluded "very little is known for certain about the nature and measurement of teacher personality and teacher effectiveness." However, when one thoroughly reviews the recent literature on teacher characteristics, it would appear that studies conducted within the framework of Maslow's theory of self-actualization have yielded consistently promising results. Particular teacher characteristics which contribute to self-actualization have been shown to be related to various important aspects of classroom climate and certain student characteristics (1, 9, 10, 11, 17). Based on these research findings, it is considered quite possible that a relationship may exist between test anxiety levels of students and those teacher personality characteristics associated with self-actualization. This study was an attempt to determine if such a relationship exists. Stated in question form, the research question investigated was: What relationship, if any, exists between teacher personality characteristics associated with self-actualization and the test anxiety levels of their students?

METHOD

Instrumentation

Teacher personality characteristics were assessed on the basis of scores obtained with the Shostrom Personal Orientation Inventory (POI) (16). This inventory is described by Shostrom (16) as measuring personality categories of importance in the development of self-actualization.

The validity of the POI has been established through several types of studies. All twelve scales of the instrument have been found to differentiate between individuals in various stages of psychotherapy (16). In another study (16), scores on nine of the twelve scales were found to be correlated with the scores of raters judging degree of self-actualization of adults. The POI has also been shown to correlate highly with various subtests of the Minnesota Multiphasic Personality Inventory (MMPI), Eysenck Personality Inventory, The Sixteen Personality Factor Questionnaire, and the Guilford-Zimmerman Temperament Survey, all of which purport to measure personality characteristics (16).

Test-retest reliability coefficients are reported for the POI scales based on a sample of 48 college students. Reliability coefficients for the major scales of Time Competence and Inner-Directed Support are .71 and .84 respectively while the coefficients for the sub-scales range from .55 to .85. In general, these reliability coefficients

are described by the test authors as being "at a level as high as that reported for most personality measures" (16).

The scale used to measure test anxiety of students was the Test Anxiety Scale for Children (TASC) developed by Sarason, et al (14). This scale is based on the assumption that anxiety is situationally evoked and assesses test anxiety defined as "an individual's uneasiness or tension with respect to testing situations and also the demands of school work in general..." (6).

Concurrent validity of the instrument is reported on the basis of significant correlations between TASC scores and teacher ratings of observed student test anxiety (14). These writers report the reliability of the TASC on the basis of test-retest study using a sample of 370 sixth graders. The study yielded a reliability coefficient of .666. A similar study by Manley (5) using samples of seventh and eighth grade students yielded reliability coefficients of .81 and .71 respectively.

Groups Involved In The Study

This study was conducted in the six member elementary school district of an educational cooperative located in south suburban Cook County, Illinois. The communities served by this cooperative are residential with single family dwellings and apartments. The citizenry is largely middle class with many blue collar workers.

The POI was administered to 62 full-time fourth through eighth grade teachers employed within the school district. Thirty-nine of these teachers taught at the fourth to sixth grade levels, while the other 23 taught seventh or eighth grade. All fourth through eighth grade students in the schools involved were administered the TASC. There were a total of 1,349 students on whom testing was completed.

Procedure

The TASC scale was administered by the classroom teachers according to the standard directions accompanying it. The scale was administered near the end of May so that the students had been with their classroom teachers for close to the entire school year.

The extent of the relationships between the individual POI scales and subscales and student TASC scores was tested by calculating Pearson Product Moment Correlation coefficients. The degree of multiple relationship between POI scales and subscales and the student TASC scores was determined by means of multiple regression analyses. Significance of the resultant multiple correlation coefficients was tested by means of F ratios. All statistical analyses were conducted by means of SPSS computer programs (12).

Both the correlation coefficients and the multiple regression analyses were calculated for the total group (4th through 8th grade teachers and students) and for

elementary (4th through 6th grade teachers and students) and junior high school (7th and 8th grade teachers and students) subgroups. Pearson Product Moment Correlation coefficients for the total group and the two subgroups are listed in Table 1, while results of the multiple regression analyses are listed in Table 2.

RESULTS

Based on the results presented in Table 1, a hypothesis of no relationship between fourth through eighth grade teacher scores on the individual POI variables and the mean TASC scores of their students was rejected for only the following POI variables: Self-regard, Nature of Man, and Synergy. A significant negative correlation was found between fourth through eighth grade teacher scores on each of these three POI subscores and the mean TASC scores of their students. In all these cases, the correlation coefficient was significant at the .05 level. The hypothesis of no relationship was retained for the remaining eleven POI subscores as all other correlation coefficients were non-significant.

A hypothesis of no significant multiple correlation between fourth through eighth grade teacher scores on the POI variables and the mean TASC scores of their students was tested by means of a stepwise multiple regression analysis (12). Results of this statistical analysis are presented in Table 2. Due to the relatively small sample

and the large number of independent variables, only the first four steps of the analysis will be discussed.

A significant multiple correlation between teacher scores on the POI variables and the mean TASC scores of their students was found for the total group (fourth through eighth grade teachers and students). The F ratio produced by the first step of this analysis indicated the strength of the multiple correlation to be significantly different from zero at the .05 level. The F ratio remained significant through the first three steps of the multiple regression analysis indicating that fourth through eighth grade teacher scores on the variables of Nature of Man, Self-Regard, and Inner-Directed Support combine to account for a significant amount of the variation in the mean TASC scores of their students. The multiple correlation coefficient at this step was .370 indicating that the teacher scores on these three POI variables in combination accounted for the .137 of the variation in the mean student TASC scores. After this point, the F ratio became insignificant indicating that the entering of further variables into the regression equation did not significantly increase the amount of accounted for variance.

A hypothesis of no relationship between fourth through sixth grade teacher scores on the individual POI variables and the mean TASC scores of their students was tested for each of the fourteen POI scales and subscales by means of Pearson Product Moment Correlation coefficients (12). (Refer to Table 1 for the results of these calcula-

tions.) The hypothesis of no relationship was not rejected for any of the POI variables. No significant relationships were found between fourth through sixth grade teacher scores on any of the individual POI scales and subscales and the mean TASC scores of their students.

A hypothesis of no significant multiple relationship between fourth through sixth grade teacher scores on the POI variables in combination and the mean TASC scores of their students was tested by means of a stepwise multiple regression analysis. Results of this statistical analysis are presented in Table 2. Again, only the first four steps of the analysis will be discussed.

No significant multiple correlation was found. The F ratio calculated at each step of the regression analysis indicated the degree of multiple correlation did not differ significantly from zero for any combination of POI variables. These results indicate that fourth through sixth grade teacher scores on POI variables do not singularly or in combination account for a significant amount of the variance in the mean TASC scores of their students.

A hypothesis of no significant relationship between seventh and eighth grade teacher scores on the individual POI variables and the mean TASC scores of their students was tested for each of the fourteen POI scales and subscales by means of Pearson Product Moment Correlation

coefficients. (Refer to Table 1 for the results of these calculations.) The hypothesis of no relationship was rejected for only the Spontaneity subscale of the POI. A significant negative correlation was found between seventh and eighth grade teacher Spontaneity scores and the mean TASC scores of their students. This relationship was significant at the .05 level.

A hypothesis of no significant multiple correlation between seventh and eighth grade teacher scores on the POI variables and the mean TASC scores of their students was tested by means of a stepwise multiple regression analysis. (Refer to Table 2 for the results of this statistical analysis.) Again, only the first four steps of the analysis will be discussed.

A significant multiple correlation was found between seventh and eighth grade teacher scores on the POI variables and the mean TASC scores of their students. The F ratio produced by the first step of this analysis indicated the strength of the multiple correlation to be significantly different from zero at the .05 level. The F ratio remained significant through the first four steps of the regression analysis. This indicates that a significant amount of the variation in the seventh and eighth grade student TASC scores is accounted for by teacher scores on the following POI variables in combination: Spontaneity, Self-Regard, Inner-Directed Support,

and Synergy. After entering these four variables into the multiple regression equation, a multiple correlation of .641 was obtained indicating that the teacher scores on the combination of these four variables account for .412 of the variation in mean student TASC scores at the seventh and eighth grade levels.

CONCLUSIONS

The following conclusions were based on the findings of this study:

1) When considered as a total group, fourth through eighth grade teacher scores on the individual POI variables of Self-Regard, Nature of Man, and Synergy were found to be negatively correlated with student test anxiety scores. It was concluded, therefore, that on the whole, fourth through eighth grade teachers who have high self-regard as well as those who have a positive view of man and those who are able to see opposites as being meaningfully related (i.e., are synergistic) tend to have students who, on the average, manifest relatively low test anxiety. Conversely, those teachers who are low in self-regard as well as those with a negative view of man and those who are not synergistic tend to have students with relatively high test anxiety. Teacher scores on the above three POI subscores were the only ones significantly correlated with student test anxiety. Therefore, it was

concluded that at the fourth through eighth grade level the remaining teacher personality characteristics associated with self-actualization (as measured by the POI) are unrelated to student test anxiety.

2) When considered as a total group, there was a significant multiple correlation between fourth through eighth grade teacher scores on the POI variables of Self-Regard, Nature of Man, and Inner-Directed Support and the test anxiety levels of their students. It was concluded, therefore, that teachers with the characteristic of high self-regard in combination with a positive view of man and a sense of inner-directedness tend to have students with relatively low test anxiety. Conversely, those who are low in the above characteristics tend to have students with relatively high test anxiety.

3) For the elementary (fourth through sixth) grade level subgroup, there were no significant correlations between teacher scores on any of the individual POI variables and student test anxiety scores. It was concluded, therefore, that at the fourth through sixth grade level individual teacher personality characteristics associated with self-actualization are not significantly related to the test anxiety levels of their classroom students.

4) For the elementary (fourth through sixth) grade subgroup, there was no significant multiple correlation

between teacher scores on the POI variables and the test anxiety levels of their students. It was concluded, therefore, that at the fourth through sixth grade level there is no significant relationship between any combination of teacher personality characteristics associated with self-actualization and student test anxiety.

5) For the junior high school (seventh and eighth) grade level subgroup, a significant negative correlation was found between teacher scores on the POI variable of Spontaneity and student test anxiety. It was concluded, therefore, that seventh and eighth grade teachers able to express feelings spontaneously tend to have students with relatively low test anxiety. Conversely, those seventh and eighth grade teachers who have difficulty expressing feelings spontaneously tend to have students with relatively high test anxiety. Since correlations between seventh and eighth grade teacher scores on the remaining POI variables were insignificant, it was concluded that remaining teacher personality characteristics associated with self-actualization (as measured by the POI) are unrelated to student test anxiety.

6) For the junior high school (seventh and eighth) grade level subgroup, a significant multiple correlation was found between teacher scores on the POI variables of Spontaneity, Self-Regard, Inner-Directed Support, and Synergy and the test anxiety levels of their students.

It was concluded, therefore, that seventh and eighth grade teachers with high spontaneity in combination with high self-regard, a sense of inner-directedness, and the ability to see opposites as meaningfully related (Synergy) tend to have students with relatively low test anxiety. Conversely, those seventh and eighth grade teachers low in the above characteristics tend to have students with relatively high test anxiety.

DISCUSSION

Only one previous study was reviewed that examined the relationship between teacher personality and student test anxiety (4). In that study, teacher personality maladjustment was found to be positively related to the test anxiety levels of a group of junior high school students. The current finding of a negative relationship between teacher personality characteristics associated with self-actualization and student test anxiety is quite compatible with the findings of that study.

The current finding of a relationship at the junior high school level but not at the elementary level is similar to that of Meyer (9). Her study indicated a relationship between teacher self-actualization and student self-esteem at the seventh and eighth grade levels. Thus, the contention of both Maslow (8) and Combs (8) that self-actualizing teachers have a significant impact

on the emotional climate of their classrooms is given support at only the junior high school level by the results of both this and Meyer's (9) study. However, it is important to note that the multiple correlation for the elementary grade group approached significance. In fact, the F ratio calculated at the fourth step of the multiple regression analysis was 2.64 while that necessary for significance at the .05 level was 2.65. Thus, a replication of the study with a different sample may reveal a relationship at the elementary as well as the junior high school level.

Interpreting these current findings along with those of Meyer (9) who found junior high school teacher self-actualization related to student self-esteem would suggest self-actualization as an important criterion in the selection of junior high school teachers. The results of this study also suggest the importance of pre-service and in-service training for teachers of early adolescents in order to help them be aware of and deal with those aspects of their personality which may have a particular impact on the adjustment of their students.

Table 1

Correlation Coefficients Between Teacher Scores on the Individual POI Scales and Subscales and the Average TASC Scores of their Students (For total group and subgroups of grades 4-6 and grades 7-8).

	Total group (4-8)			Grades 4-6			Grades 7-8		
POI Variable	v	N	Sign. Level	v	N	Sign. Level	v	N	Sign. Level
Time Competence	-.192	62	.135	-.132	39	.425	-.342	23	.110
Inner-Directed Support	-.193	62	.133	-.180	39	.272	-.269	23	.215
Self-Actualizing Value	-.225	62	.079	-.178	39	.277	-.329	23	.125
Existentiality	-.135	62	.297	-.161	39	.329	-.065	23	.770
Feeling Reactivity	-.233	62	.068	-.206	39	.209	-.276	23	.202
Spontaneity	-.143	62	.267	-.035	39	.833	-.415	23	.049*
Self-Regard	-.274	62	.031*	-.255	39	.117	-.368	23	.084
Self-Acceptance	-.184	62	.152	-.131	39	.428	-.342	23	.111
Nature of Man	-.296	62	.020*	-.290	39	.073	-.295	23	.172
Synergy	-.253	62	.048*	-.206	39	.208	-.331	23	.123
Acceptance of Agression	-.205	62	.110	-.193	39	.240	-.226	23	.301
Capacity for Intimate Contact	-.186	62	.147	-.128	39	.439	-.344	23	.108
Time Ratio	-.010	62	.941	.051	39	.760	-.120	23	.587
Support Ratio	.042	62	.743	.115	39	.487	-.166	23	.449

*Interpreted as statistically significant.

Table 2

Summary Table of the first four steps of the Multiple Regression Analysis between the scores of teachers on the POI variables and the mean TASC scores of their students for the total group (grades 4-8) and the two subgroups (grades 4-6 and grades 7-8).

POI Variable	Multiple R	R Square	RSQ Change	Simple R	B	Beta
Total group (grades 4-8)						
Nature of Man	0.296*	0.087	0.087	-0.296	-0.122	-0.157
Self-Regard	0.341*	0.116	0.029	-0.274	-0.211	-0.290
Inner-Directed Support	0.370*	0.137	0.021	0.042	0.339	0.182
Self-Acceptance	0.380	0.145	0.008	-0.184	-0.108	-0.193
Elementary group (grades 4-6)						
Nature of Man	0.290	0.084	0.084	-0.290	-0.128	-0.175
Spontaneity	0.338	0.114	0.030	-0.035	0.461	0.758
Self-Regard	0.443	0.196	0.082	-0.255	-0.332	-0.501
Feeling Reactivity	0.487	0.237	0.041	-0.206	-0.205	-0.355
Junior High group (grades 7-8)						
Spontaneity	0.415*	0.172	0.172	-0.415	-0.870	-1.045
Self-Regard	0.480*	0.231	0.059	-0.368	-0.029	-0.031
Inner-Directed Support	0.542*	0.294	0.063	-0.269	0.249	1.422
Synergy	0.641*	0.411	0.117	-0.331	-0.872	-0.637

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